



AMATEURADIO

News of the Amateur Radio
and Amateur Satellite Services

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AN INAUGURAL MESSAGE FROM THE PRESIDENT OF THE AMERICAN RADIO RELAY LEAGUE

The future of our nation lies in our youthful citizens and the contributions they will make to our society in the years to come. Certainly, there are many aspects of the training and development of our youth which help to assure their capabilities of meeting the challenges of tomorrow.

Among these capabilities we must consider the importance of technology and communications. Technology because we are in a world of ever-increasing dependence on state of the art developments where our personal awareness and comprehension will assist in accepting and understanding the demands of a progressive society. Communications because it is at the very focal point of every aspect of our life... personal, family, community, business and country... not to mention the world.

Is there an activity available to our youth which will provide a training ground to achieve knowledge of these two important points? The answer is a resounding YES! Amateur Radio, the hobby of hundreds of thousands of citizens and thousands more around the world, offers a unique opportunity for our youth (and others, too) to develop both a technologic and communications capability.



This publication will continue to bring into focus the value of Amateur Radio to the individual, community, nation and world so that the support of opinion makers in our government can be achieved. The orderly growth of Amateur Radio as a national resource will prove to be an asset for the future. Your interest will be appreciated.

Harry J. Dannals
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President, ARRL

THE ARRL - WHAT IS IT?



More than 60 years ago a group of amateur radio operators, led by the noted industrialist, author and inventor, Hiram Percy Maxim, created the American Radio Relay League. It is a non-profit association of radio amateurs bonded for the promotion of interest in amateur radio communications and experimentation, the advancement of the radio state of the art and the public welfare, and the maintenance of fraternalism and a high standard of conduct.

The largest amateur radio organization in the world, the ARRL is the spokesman for more than 150,000 U.S. and Canadian amateur radio operators and is headquarters for the International Amateur Radio Union (IARU), comprising similar organizations in over a hundred nations.

The League's headquarters is in the Hartford, Connecticut suburban town of Newington, near its place of origin. Its employees prepare and publish technical literature, develop equipment ideas in a modern laboratory, and provide numerous other services for the membership and in the public interest. The League maintains liaison with the FCC, the Department of Defense, the American

Red Cross and many other groups in a stand-by emergency communications capacity.

ARRL also operates an amateur radio station, W1AW, which transmits news bulletins day and night by Morse code, voice and radio teletype, and has regular practice sessions for those learning Morse code.

HAMS IN SPACE



With the Soviet launching of Sputnik 1 in 1957, the world was thrust into the space age. Just four years later, through the efforts of a group of volunteer Amateur Radio operators, the world's first non-governmental satellite, OSCAR 1, was put into space.

Since 1961, there have been eight OSCARS (Orbiting Satellites Carrying Amateur Radio), the most recent being designed and constructed under the supervision of AMSAT (the Radio Amateur Satellite Corporation), a non-profit scientific organization in Washington, D.C. Amateurs from the U.S. and around the world have contributed time and materials to this satellite program, making it truly an international effort.

Traveling at nearly 16,000 mph, OSCAR receives and sends radio messages from ground stations, allowing Amateurs the world over to talk to one another. OSCAR 7 and 8 are still orbiting the earth, providing two-way communication between Amateur stations up to 5,000 miles apart.

OSCAR satellite demonstrations have been used in schools to teach general science, foreign languages, physics, astronomy and electronics. In addition, OSCARS can be used for emergency communications when normal lines of communication are disrupted or unavailable.

The group of Amateurs who put together OSCAR 1 expended just over \$63 to design and build it. Today, although recent Amateur Radio satellites are more complex and expensive, they are still designed and constructed by people from various professions who share a common interest - furthering the Amateur Radio satellite program that has contributed so much in the areas of technology, education and public service.



QST, ARRL's monthly journal, first appeared in December 1915 as a sixteen page radio relay bulletin, but over the years has become a widely respected voice in Amateur Radio.

WITHOUT WARNING



On Wednesday,
October 3, 1979, the
Greater Hartford, Connec-
ticut skies darkened and rain

exploded from the menacing thunderheads above. Thunderstorms had been forecast, but the sudden deluge caught the area by surprise.

By 3 p.m. there was flash flooding, communications and electric power were knocked out, and a local hospital was calling for an emergency generator. News broadcasts reported that an inn near Bradley International Airport in Windsor Locks had "lost" its roof, but the report was unconfirmed.

Town police were sent into the area but, as one official said, "It was like sending them into a black hole. They went in, but no reports came back." The Connecticut State Police and the Emergency Broadcast System were activated.

It was several hours before enough information was available for State officials in Hartford to realize the full scope of the problem -- that sections of Windsor, Windsor Locks and Suffield, Connecticut had been hit by a tornado. Stopped clocks in the area recorded the time: 2:57 p.m. Two persons were killed, 143 hospitalized, 350 injured and about \$254 million in property destroyed. A third victim died 18 days later.

State Police command posts were set up in the disaster areas, all roads in were sealed off, and Amateur Radio operators jumped into action. Amateurs checked in at the Windsor Civil Defense office to get I.D. cards to allow them to pass police checkpoints and set up operations continued through the night.

At first light Thursday, a State Civil Preparedness communications van moved into the area, and Governor Ella Grasso was on the scene. Damage assessment teams were sent into affected areas. A ham operator was assigned to each team and to every town official that checked in, thereby insuring instant contact with command posts. When the Salvation Army and Red Cross food vans went in a ham radio operator also went with each one. Operations continued around the clock for the next five days.

On Friday, just two days after the tornado struck, another potentially dangerous weather front, with conditions much like the previous Wednesday, was making its way toward Connecticut. The Connecticut Amateur Radio Weather Reporting Service tracked it from Albany, New York, giving status reports every half-hour. Connecticut got a reprieve when the approaching front failed to take on storm proportions.

Amateur Radio operators also provided radio communications when mobile homes were brought in to house those left homeless, and during cleanup operations. In all, more than 156 ham operators reported to command centers, while many more were called upon to provide communications outside the disaster area.

(Excerpts were taken from a December 1979 QST article by Bill Clede, K1AH, titled "Without Warning".)

WARC 79



One of the most valuable natural resources we have is the radio spectrum. We use it for business, entertainment, research, and even for saving lives. In this day and age, communication is the essence of survival.

As the needs of the international community increase, our valuable finite resource, the radio spectrum, seems to shrink. Therefore, every twenty years, a major World Administrative Radio Conference (WARC) is held in Geneva, Switzerland to ease the crowding of the users and to satisfy some very compelling demands.

The most recent conference was held in the Fall of 1979. It lasted for eleven weeks and took years of strategy and preparation for all concerned. Present at this meeting were representatives from the telecommunication authorities from nearly every country in the world, many with drastically differing viewpoints.

In the fierce battle for spectrum space, the Amateur Radio and Amateur Satellite Services stood on firm ground and held their own. In fact, the Amateur Radio spectrum even increased! There are two reasons for this success.

First of all, the Amateur Radio service has a fine international reputation. The very basis and purpose of Amateur Radio is to enhance international goodwill. This is accomplished by people all over the world and with different backgrounds, communicating through the common language of Amateur Radio.

Secondly, the organization of the Amateur Radio service is very solid. The International Amateur Radio Union, of which the ARRL is administrative headquarters, and which is comprised of active amateur organizations from 111 countries, provided a strong sense of motivation, and the intercommunication so urgently needed for success. We will be telling you more about the International Amateur Radio Union in the coming months.

ARRL'S MAN IN WASHINGTON



Perry Williams was recently appointed as the American Radio Relay League's Washington, D.C. Area Coordinator. Williams replaces Hal Steinman, who has been named manager of ARRL's Membership Services Department.

Williams, who has been with ARRL since 1954, will utilize his more than 25 years experience working with government and regulatory officials and nearly 30 years as a radio amateur in his new position as the League's Capital representative.

On many occasions Williams has played a key role in drafting ARRL comments in response to FCC Notices of Proposed Rule-making and Inquiries, and in preparing Congressional testimony. He has been responsible for the League's public information program during much of his tenure, and has served as secretary for ARRL Board meetings for 20 years.

Williams is in Washington many days each month, and a visit from him can be coordinated by calling (203) 666-1541 or (202) 296-9107.



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